

Claims

1. A receiving sleeve for a piezoelectric actuator, in particular for a piezoelectric actuator for driving an injector of an injection system for an internal combustion engine, having

a first sleeve part (1) and a second sleeve part (2),

10 the first sleeve part (1) being connected to the second sleeve part (2) in the assembled state,

characterized by

15 an anti-rotation element (6, 8) for maintaining a predetermined angular position between the first sleeve part (1) and the second sleeve part (2).

2. The receiving sleeve as claimed in claim 1,
20 characterized in that the anti-rotation element (6, 8) has a slot-and-key connection which consists of a slot (6) that is incorporated in one of the two sleeve parts (1, 2) and a shape-matched key (8) that is attached to the other sleeve part (1) and in the assembled
25 state engages in the slot (6).

3. The receiving sleeve as claimed in claim 2,
characterized in that the slot (6) and/or the key (8) have/has an insertion bevel
30 (7, 9), the insertion bevel (7, 9) enabling a pre-assembly of the first sleeve part (1) and the second sleeve part (2) with an angular displacement.

4. The receiving sleeve as claimed in claim 3,
c h a r a c t e r i z e d i n t h a t
the maximum angular displacement for the pre-assembly lies in
the range between 1° and 10°.

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5. The receiving sleeve as claimed in claim 3 or 4,
c h a r a c t e r i z e d b y
a plug-and-socket connection between the first sleeve part (1)
and the second sleeve part (2) having a predetermined length,
10 the insertion bevel (7, 9) extending in the axial direction
over only a part of the length of the plug-and-socket
connection.

6. The receiving sleeve as claimed in claim 5,
15 c h a r a c t e r i z e d i n t h a t
the insertion bevel (7, 9) extends in the axial direction over
10% to 50% of the length of the plug-and-socket connection.

7. The receiving sleeve as claimed in claim 5 or 6,
20 c h a r a c t e r i z e d i n t h a t
the slot (6) and/or key (8) extend/extends over at least a
part of the length of the plug-and-socket connection, starting
from the free end of the respective sleeve part (1, 2) in each
case, so that the key (8) engages in the slot (6) already
25 during the joining together of the two sleeve parts (1, 2).

8. The receiving sleeve as claimed in one of the claims 5 to 7,
c h a r a c t e r i z e d i n t h a t
the slot (6) and/or key (8) of the slot-and-key connection (6,
30 8) extend/extends over the entire length of the plug-and-
socket connection, the insertion bevel (7, 9) taking up a part
of the length of the plug-and-socket connection, while the
anti-rotation element takes up all of the remainder of the
length of the plug-and-socket connection.

9. The receiving sleeve as claimed in one of the claims 3 to 8,

characterized in that

5 both the slot (6) and the key (8) have an insertion bevel (7, 9).

10. The receiving sleeve as claimed in claim 9,

characterized in that

10 the insertion bevel (7) of the slot (6) has essentially the same insertion angle as the insertion bevel (9) of the key (8), so that during assembly the two insertion bevels (7, 9) slide onto each other in essentially plane-parallel fashion.

15 11. The receiving sleeve as claimed in one of the preceding claims,

characterized in that

in the assembled state the first sleeve part (1) is mated with the second sleeve part (2) by means of a snap-in connection
20 (10, 11) which has a predetermined latching point.

12. The receiving sleeve as claimed in claim 11,

characterized in that

the insertion bevel (7, 9) acts at a maximum only as far as
25 the latching point when the two sleeve parts (1, 2) are joined together.

13. The receiving sleeve as claimed in one of the claims 3 to 12,

30 characterized in that

the insertion bevel (7, 9) runs essentially straight and uncurved.

14. The receiving sleeve as claimed in one of the claims 3 to 13,

characterized in that

the insertion bevel (7, 9) transitions seamlessly into the

5 anti-rotation element.

15. The receiving sleeve as claimed in one of the claims 3 to 14,

characterized in that

10 the insertion bevel (7, 9) transitions with a bend into the anti-rotation element.

16. The receiving sleeve as claimed in one of the preceding claims,

15 characterized in that

the first sleeve part (1) and the second sleeve part (2) each have recesses (3-5) in their end faces for guiding the piezoelectric actuator.

20 17. The receiving sleeve as claimed in claim 16,

characterized in that

the piezoelectric actuator with the recesses (3-5) forms a fit whose angular clearance is greater than the angular clearance of the anti-rotation element in order to prevent torsional

25 forces being brought to bear on the piezoelectric actuator.

18. A piezoelectric actuator having electrical connecting leads and a receiving sleeve,

characterized in that

30 the piezoelectric actuator is enclosed on the longitudinal side by the receiving sleeve (1, 2).